

REMARKS

Claims 1-4 and 9-13 currently appear in this application. The Office Action of January 16, 2002, has been carefully studied. It is believed that all of the claims are allowable, and favorable action is earnestly requested.

Support for new claims 9-13 can be found in the specification as filed as follows:

Claim 9, page 7, last paragraph;

Claim 10, page 27, second paragraph,

Claim 11, page 28, first full paragraph;

Claim 12, page 9, second full paragraph;

Claim 13, page 30, last paragraph.

Election/Restriction

It is noted that the restriction requirement has been made final. Accordingly, claims 5-8 have been cancelled from the present application, applicant reserving the right to present these claims in a later filed divisional application.

Art Rejections

Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Egli. This rejection is respectfully traversed. While Egli et al. disclose the fact that hydrogen-oxidizing, autotrophic, nitrate-reducing bacteria were obtained from a commercial

groundwater-treatment plant, the only process for which these bacteria are used in Egli et al. is for dehalogenating tetrachloromethane. There is nothing in Egli et al. about treating water to treat nitrate-contaminated drinking water.

Claims 1 and 4 are rejected under 35 U.S.C. 103(a) over Applicant's admission as to the contents of a prior art publication. The Examiner alleges that applicant admits at page 3 that Liessens describes that industrial plants that use mixed-culture populations of hydrogen-oxidizing denitrifiers have been operated outside of this country.

This rejection is respectfully traversed. It should be noted that in Applicant's comments about the Liessens article, the plants are engineered to produce up to 50 m³ per day of water, they are technically complex, require a commercial supply of hydrogen, and trained experts to ensure an adequate function on a daily basis. The present invention, on the other hand, is relatively simple and does not require trained personnel or a commercial supply of hydrogen. Therefore, it is believed that there is nothing in Liessens that renders the presently claimed invention obvious.

Claim 2 is rejected under 35 U.S.C. 102(e) as anticipated by Tanaka.

This rejection is respectfully traversed.
Tanaka disclose treating sludge by adding and mixing carbide with sludge to produce compost for recycling. This is not at all the same as the present invention, which claims a method for removing nitrates from contaminated water.

Rejections under 35 U.S.C. 112

Claim 3 is rejected under 35 U.S.C. 112, first paragraph, for failing to teach how to make or use the invention.

This rejection is respectfully traversed.
Claim 3 has been amended to recite that the hydrogen is produced by electrolysis of water, which the Examiner admits is clearly enabled.

It is noted that the patents cited but not applied to the claims are merely cited as being of interest.

In view of the above, it is respectfully submitted that the claims are in condition for allowance, and favorable action thereon is earnestly solicited.

Favorable consideration is respectfully

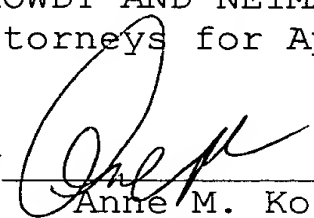
In re Appl. No. 09/662,507
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requested.

Respectfully submitted,

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"Version with markings to show changes"

1. (Amended) A method for ~~treating~~ removing
nitrate from nitrate-contaminated water comprising
treating said water in a hydrogen-fed bioreactor with
autotrophic, hydrogen-oxidizing denitrifying bacteria ~~in~~
~~the presence of hydrogen.~~

3. (Amended) The method according to claim ~~1~~
12 wherein the hydrogen is produced by ~~hydrolysis~~
electrolysis of water.